DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

69.28 File #:

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-010854 Address: 333 Burma Road **Date Inspected:** 22-Dec-2009

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG Segment**

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, M.Manikandan was present during the time noted above for observations relative to the work being performed.

OBG # TRIAL ASSEMBLY YARD (Lift 5 East)

During a random visual skin flatness survey of exterior surfaces of segment Lift 5 East located in the Trial Assembly area, the Caltrans Quality Assurance (QA) Inspector discovered the following issues: 5AE to 5BE

1) 5AE SP (SP304A) to SP (SP423A) - Bike path side

Surface flatness surveys were taken on the exterior Side Panel (SP) surface of weld splice SEG022A-010, Bike path side of 5AE between PP31 to PP32. The out of flatness measurements were taken across the Side Panel in the transverse direction between the longitudinal weld splice. These measurements were out of flatness 8mm in 630mm, which exceeds the maximum 5mm out of flatness requirement per the approved State letter 05.03.01. 004667.

The longitudinal weld splice is identified as: SEG022A-010.

The Transverse weld splice is identified as: OBE5A-004 & OBE5A-005.

The SP to SP plate numbers are: SP304A to SP423A

The location was at the Bike path side of Segment 5AE.

2) 5AE SP (SP521A) to SP (SP419A) - Cross beam Side

Surface flatness surveys were taken on the exterior Side Panel (SP) surface of weld splice SEG022A-001, Cross beam side of 5AE between PP31 to PP32. The out of flatness measurements were taken across the Side Panel in the transverse direction between the longitudinal weld splice. These measurements were out of flatness 7mm in

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630mm, which exceeds the maximum 5mm out of flatness requirement per the approved State letter 05.03.01. 004667.

The longitudinal weld splice is identified as: SEG022A-001.

The Transverse weld splice is identified as: OBE5A-002 & OBE5A-001.

The SP to SP plate numbers are: SP521A to SP419A

The location was at the Cross Beam side of Segment 5AE.

5BE to 5CE

1) 5BE SP (SP305A) to SP (SP424A) - Bike path side

Surface flatness surveys were taken on the exterior Side Panel (SP) surface of weld splice SEG024A-031, Bike path side of 5BE between PP34 to PP35. The out of flatness measurements were taken across the Side Panel in the transverse direction between the longitudinal weld splice. These measurements were out of flatness 7mm in 630mm, which exceeds the maximum 5mm out of flatness requirement per the approved State letter 05.03.01. 004667.

The longitudinal weld splice is identified as: SEG024A-031.

The Transverse weld splice for 5BE to 5CE is identified as: OBE5A-009 & OBE5A-010.

The SP to SP plate numbers are: SP305A to SP424A

The location was at the Bike path side of Segment 5BE.

2) 5CE SP (SP524A) to SP (SP422A) - Cross beam Side

Surface flatness surveys were taken on the exterior Side Panel (SP) surface of weld splice SEG026A-009, Cross beam side of 5CE between PP34 to PP35. The out of flatness measurements were taken across the Side Panel in the transverse direction between the longitudinal weld splice. These measurements were out of flatness 7mm in 630mm, which exceeds the maximum 5mm out of flatness requirement per the approved State letter 05.03.01. 004667.

The longitudinal weld splice is identified as: SEG026A-009.

The Transverse weld splice for 5BE to 5CE is identified as: OBE5A-007 & OBE5A-006.

The SP to SP plate numbers are: SP524A to SP422A

The location was at the Cross Beam side of Segment 5CE.

This QA Inspector randomly observed the following work in progress:

OBG # TRIAL ASSEMBLY YARD (6AW)

SMAW Process:

Welding of weld joint –044 located on PCMK SEG027*. Welder is identified as 048617. ZPMC CWI is identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-Tc-U4b-FCM-1.

OBG # TRIAL ASSEMBLY YARD (6AW-6BW)

SMAW Process:

Welding of weld joint -003 located on PCMK OBW6B, Bottom panel Transverse splice weld. Welder is identified as 067942. ZPMC CWI is identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-B-U2-FCM-1.

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SMAW Process:

Welding of weld joint -003 located on PCMK OBW6B, Bottom panel Transverse splice weld. Welder is identified as 067571. ZPMC CWI is identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-B-U2-FCM-1.

SMAW Process:

Welding of weld joint -002 located on PCMK OBW6B, Side panel Transverse splice weld. Welder is identified as 066261. ZPMC CWI is identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-B-U2-FCM-1.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

The incident report is issued for the above mentioned discrepancy observed in Lift 5 East. And prior to issue it was informed to ZPMC QC and ABF QA.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Manikandan, Murugan	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer